

IN THE SPECIFICATION

Please replace paragraph [0001] with the following amended paragraph:

[0001] This application is a continuation in part under 37 C.F.R § 1.53(b) of U.S. Patent Application Serial No. 09/791,421, filed February 23, 2001 (Attorney Docket No. 6270/55) (pending) ~~now U.S. Pat. No. _____~~, the entire disclosure of which is hereby incorporated by reference.

Please replace paragraph [0003] with the following amended paragraph:

[0003] U.S. Pat. ~~Application Ser. No. _____~~ Application Ser. No. 09/931,427, “INTELLIGENT ELECTRONIC DEVICE WITH ASSURED DATA STORAGE ON POWERDOWN”, (Attorney Ref. No. 6270/67), filed concurrently herewith.

Please replace paragraph [0004] with the following amended paragraph:

[0004] U.S. Pat. ~~Application Ser. No. _____~~ Application Ser. No. 09/931,527, “APPARATUS AND METHOD FOR SEAMLESSLY UPGRADING THE FIRMWARE OF A AN INTELLIGENT ELECTRONIC DEVICE”, (Attorney Ref. No. 6270/68), filed concurrently herewith.

Please replace paragraph [0008] with the following amended paragraph:

[0008] The upgrade of the IED’s firmware is normally initiated by the remote CPU (in a computer or other device). Therefore, the IED is not normally involved in the decision as to whether to upgrade its ~~it’s~~ firmware or not. This means that the IED cannot prevent an undesirable upgrade ~~upgrades~~ to its code, e.g., if it is in the middle of a critical control operation, or if the new code is not compatible with the IED for some reason. In addition, there must be some intelligence in the remote CPU in order to execute the upgrade and/or provide an interface to the user that is initiating the upgrade. The user must also have intimate knowledge about the new code to ensure it is compatible with the IED.

Please replace paragraph [0039] with the following amended paragraph:

[0039] To provide a device that can adapt to accommodate at least some of the features and functions described above, a preferred embodiment utilizes a hardware feature key, that includes a key module and a key code which, when installed on a "base" or "parent" device, configures the base device and allows the user to access and utilize various levels of features. For example, the base device includes the hardware and software functionality to provide many electrical measurements, communications and digital outputs. The hardware feature key controls whether or not any of these features or functions of the device ~~is~~ are enabled.

Please replace paragraph [0050] with the following amended paragraph:

[0050] Both the CPU 314 and the computer chip 310 calculate a Message Authentication Code ("MAC") based on data in the computer chip 310, the secret, the challenge and the unique serial number, blocks 418 420. The MAC is preferably derived from the Secure Hash Standard SHA-1 which is published in the Federal Information Processing Standards Publication 180-1. The computer chip 310 on the key then transmits its result for the MAC to the CPU 314, block 422, and the CPU 314 compares the MAC received from the key with its own calculation, block 424. If the MAC's match, block 426, the memory pattern indicating the options that the key enables is written to an enabling ~~arraying~~ array on the CPU 314, block 428, and operation of the IED 300 continues. Otherwise, if the MAC's do not match, operation of the device is disabled, block 444. In the preferred embodiment the chip operation, as described above, is done in accordance with the chip manufacturers specifications.

Please replace paragraph [0082] with the following amended paragraph:

[0082] The processor's 906 data and address bus pins 915 drive display circuitry 916, described in more detail below, through the data/address bus 940. The operation of the display circuitry will be described later. The processor's 906 Controller Area Network ("CAN") interface pins 913 interface with an external display 914 through a CAN transceiver 933. The presence of the onboard display circuitry 916 and the external display 914 may be mutually exclusive, i.e., in one embodiment of the present invention, the device

100 has onboard display circuitry coupled with an onboard display and another alternative embodiment, the device 100 has an external display 914. In still another alternative embodiment, the device 100 has both ~~and~~ an onboard display and is connected with an external display. Alternatively, the device 100 has neither an onboard display nor ~~or~~ an external display. The CAN standard is defined in the Bosch CAN Specification Version 2.0 document published by Robert Bosch GmbH, located in Stuttgart Germany.